On the Management of Patients with Typhoid Fever.

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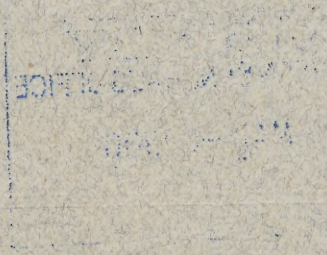

ON THE MANAGEMENT OF PATIENTS WITH TYPHOID FEVER.

By Solomon Solis Cohen, M.D., Philadelphia.

The title of this brief communication expresses the principal idea it is intended to enforce. In no other disease is it more important to bear in mind that the true function of the physician is not to attempt to interfere with the normal evolution of recovery, or the processes by which this is brought about, but rather to guide his patient safely through them. Within recent years two series of experiences have impressed upon the profession in America (one from the negative, the other from the positive side) the needed lesson that temperature in itself is not to be feared, and as a symptom is not to be directly combated, save under extreme circumstances. The unfortunate results of treatment by the coal-tar products have practically demonstrated the danger of mere antipyretic dosing; while on the other hand the excellent results obtained by the use of cold water, after the method of Brand and in other ways, have shown that the febrile process expressed by high temperature may readily and safely be controlled within certain limits, to the great increase of the patient's comfort, and with improvement of his chances of recovery.

Although I advocated the Brand system*

* *Medical and Surgical Reporter*, Philadelphia, June 25, 1887.

and employed it according to my limited facilities before many of its present advocates had seen fit to forego the use of antipyretic drugs, I do not hesitate to place myself on record against the extreme views now expressed in its favor. Of all routine methods of treatment it is the best, but no routine treatment is good. The patient must be taken into consideration; and by this I mean not alone the individual, his temperament and idiosyncrasies, but all surrounding circumstances, and the manner in which he is reacting against the morbid processes, as expressed by all the symptoms of the case.

It is the greatest mistake possible for the physician to look upon all the disturbances of function seen in sickness as in themselves morbid, and requiring to be antagonized.* Many of them are expressions of the natural tendency toward recovery; just as the swaying of the tight-rope walker to left and right is not an evidence of ataxia but of the effort and the ability to preserve his equilibrium. To strike up the arm of the funambulist would cause his fall; and to strike unnecessarily or violently at the temperature, the diarrhea, the cough, of a patient with enteric fever may precipitate him from safety into the grave. The physician, knowing the natural course of the disease, its dangers and its complications, must watch carefully the tendencies exhibited in the individual case, and safeguard his patient accordingly.

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*I have discussed this question more fully in an address entitled "Some Thoughts Concerning Disease and Recovery in Their Relation to Therapeutics," THE THERAPEUTIC GAZETTE, Sept. 15, 1896.

Taking for granted that the well-known rules of diet are observed (and as to diet, while there must be the same careful individualization as in other respects, some patients requiring much food and some doing far better with little food, I usually advise small quantities of the most easily absorbable foods—preferably pancreatized milk or (home-made) expressed beef-juice, administered every second or third hour), and that the hygiene of the sick-room is properly cared for, water, and often cold water, is the one agent of greatest usefulness in the management of patients suffering with enteric fever. It should be used freely in every case, internally as well as externally. Too often nurses unless instructed will wait for the patient to ask before offering him water to drink. This is not good nursing. The patient may be too dull to realize even the sensation of thirst. Nurses should be instructed to give at least a quart of water to drink in the twenty-four hours—boiled water if there be any doubt of its purity. In many cases systematic sponging with cool or cold water will fulfil all the indications for external hydrotherapy. The sponging must be thoroughly and properly done. Nurses must be specifically and carefully instructed in its details. Cold packing, rubbing with ice, and the like, may be used in cases of hyperpyrexia in which the bath is not available; but when available in cases severe from the outset, or which become severe in spite of treatment, the systematic cold bath should be instituted. The inexpert will do better by following the rigorous method of Brand than by attempting to

modify it. The experienced will introduce such modifications as each individual case seems to require.

In a ten minutes' paper, and upon a subject so thoroughly discussed, one cannot take up much time in details. Yet success depends upon the care given to little things, and I must here note that many nurses fail to prepare the bed properly for the reception of patients after the cold bath, and it is necessary for the physician to give specific instructions to have heated blankets ready; to receive the patient upon a warm sheet, which is to be tucked in so as to prevent two wetted skin surfaces from coming in contact, and which can be used for drying the patient and should then be removed to permit him to lie between the two warm blankets. The use of red wine rather than whiskey to give the patient before and after the bath is advisable. In some cases the use of aromatic spirit of ammonia answers the purpose. Between the tenth and twelfth days it is doubtful whether plunging should be begun. After the twelfth day the inexpert should never begin plunging. Plunging begun earlier should be continued or discontinued according to circumstances. When plunging is not well borne, or when for any reason it has not been instituted, frequent cold or cool sponging should be carried out. This is partly to reduce temperature, but largely, like the bathing, to promote general metabolism, to stimulate excretion, and to keep up the tone of the peripheral vessels. Too much stress can hardly be laid upon this latter factor. The effects on temperature,

pulse, respiration, excretions, sleep, and general comfort must be the guides as to the time, temperature, and other details of the external application of water, whether by plunging or sponging. Too great a fall of temperature after sponge bath or plunge bath is harmful. The pump-handle charts resembling septic fever shown in some hospital wards where typhoid patients are plunged, are bad charts. They are always too long; they often exhibit unnecessary relapses. A fall of one and a half degrees F., or at the most, of one degree Centigrade, is enough for a single bath. Nor should patients be wakened every two or three hours to have the temperature taken or to be sponged or bathed. They should be allowed to sleep undisturbed, if they can, for four or five hours, even when the applications are being made every second hour during wakefulness. It may be here interpolated that the same caution as to waking the patient for food should be observed.

To reduce temperature, should this be thought necessary, and to prevent or control tympanites or hemorrhage, the continuous application of ice to the abdomen — usually over the right iliac fossa—is useful. Sometimes it is advisable to intermit the use of ice, or to alternate the application of ice to the head and abdomen. In cases of severe nervous and cerebral symptoms or very high temperature there may be continuous application of ice to both head and abdomen. Sometimes an ice-bag over the precordium is conducive to comfort. McCormick has had excellent success with the use of guaiacol externally.

Internal medication is useful. I am positive as to this. The bowels should be cleansed by enema on admission (unless after the tenth day), after which, according to circumstances, a few small doses or one large dose of mercurous chloride (calomel) should be given. After the "calomel stool" intestinal disinfectants may be usefully employed. These, as I have elsewhere expressed it, may not kill Eberth's bacillus, nor neutralize its toxins, nor chase after it into the spleen or cerebrum; but they do render the patient's intestine a less favorable breeding ground for this organism and its many named and unnamed congeners; they do diminish the formation and hence the absorption of various named and unnamed toxins; they do render the course of the case less severe. I affirm this unhesitatingly as the result of a sufficient clinical study. Laboratory explanations may be found hereafter.

Of drugs of this class no one agent shows so marked a superiority over others as to warrant special claims in its behalf. One may use guaiacol or its combinations, of which I prefer the carbonate; phenyl salicylate (salol), betanaphtol or its benzoyl compound (benzo-naphtol), creosote or its carbonate (cresotal), carbolic acid and iodine, and the like. I usually employ salol or guaiacol carbonate in doses of about five grains every second to fourth hour; more recently I have used benzo-naphtol in doses of ten or fifteen grains. If diarrhea is troublesome, bismuth salicylate may be used in conjunction with the more powerful antiseptic, or beta-naphtol-bismuth (orphol) may per-

haps be equally useful. If constipation be a feature of the case enemata are usually necessary, though calomel in small doses may be used in some instances. When the enema is used it should be repeated, if necessary, every forty-eight hours, except during the period when ulceration is at its height, say from the twelfth to the sixteenth day, when the bowel should be let alone.

If notwithstanding the free use of water the urine is not excreted in sufficient quantity (that is if it be less than 30 ounces in a day) some mild diuretic, as solution of ammonium acetate, or sweet spirit of niter, or infusion of buchu, should be given. This is rarely necessary, as the water drunk is usually an efficient diuretic, and the stimulation of the skin by water and friction in tubbing or sponging likewise assists excretion.

During the second week strychnine is useful in small doses as a mild tonic stimulant. One may give from $\frac{1}{100}$ grain to $\frac{1}{60}$ grain every second to sixth hour. The smaller dose is preferable unless the prostration of the patient be excessive. During the third week the dose of strychnine may be increased to $\frac{1}{30}$ grain every third hour, if need be. Alcohol is rarely necessary before the third week, and often is unnecessary throughout. It is to be given not as a stimulant, but as a food.

A word as to an old-fashioned remedy may be permitted. When the tongue is dry, harsh, fissured, covered with brownish fur, turpentine is useful beyond doubt. Sufficient must be given to produce an effect upon the intestinal mucous membrane. The usual dose is about 15 drops in emulsion or syrup of

acacia, every second to fourth hour. If any sign of renal irritation develop turpentine must be abandoned. I have, however, never seen it do harm, and have seen it do good too often to be laughed out of its use. The occasion for it usually arises during the third week, or during convalescence. It also serves well in cases of tympanites or hemorrhage. In some cases dilute hydrochloric acid serves a good purpose, late or early, according to circumstances, in maintaining digestion and preventing gastro-intestinal fermentation and tympanites. When hemorrhage occurs the quantity of fluid of any kind administered, water or food, must be reduced to the lowest point. Milk must be stopped and beef juice substituted.

Time will not permit of extended reference to complications; to say they are to be met on general principles is to repeat what I have stated to be the main thought of this paper; that good judgment in the individual case, and the use of measures as simple as possible, will give a low typhoid mortality. The objects to be held in view are the patient's rest and comfort; the prevention of nervous symptoms by the prevention of hyperpyrexia and toxemia; the avoidance of rapid fluctuations in the condition of the patient, and especially of such abuse of antipyretic agents or hydrotherapeutic measures as will convert the temperature course from that of a continuous to that of a remittent fever; the sustentation of the patient's strength by judicious feeding, avoiding extremes, and by the judicious use of tonic medication and of agents acting upon the alimentary canal; the main-

tenance of excretion at a height sufficient to flood out from the tissues the increased products of waste, the peccant humors of the ancients; above all, the strict avoidance of meddlesome interference with necessary processes in the development of the case toward recovery.

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